

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **11275585 A**

(43) Date of publication of application: 08 . 10 . 99

(51) Int. Cl. **H04N 7/32**

(21) Application number: **11005984**

(22) Date of filing: **13 . 01 . 99**

(30) Priority: **20 . 01 . 98 US 98 9559**

(71) Applicant: **INTERNATL BUSINESS MACH  
CORP <IBM>**

(72) Inventor: **EDWARD F WESTERMAN**

(54) **METHOD FOR CODING VIDEO FRAME  
SEQUENCE, SYSTEM AND MEDIUM USABLE  
BY COMPUTER**

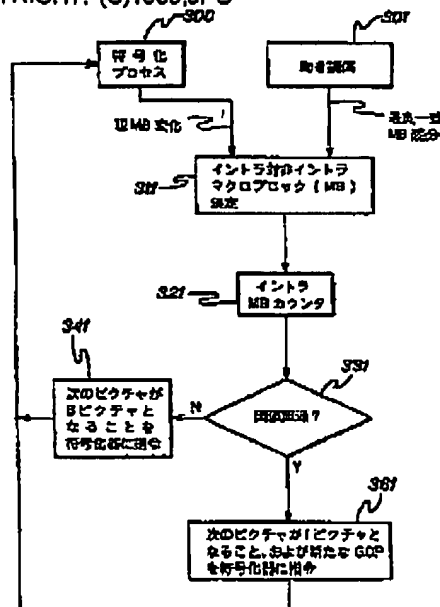
(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a method and a system to discriminate dynamically a size of a picture group (GOP) as a function of a picture change activity in a video frame sequence and to provide a product of a computer program.

**SOLUTION:** In the image statistics with respect to one or plural Intra-frame characteristics of a video frame sequence, a preset threshold value (331) is compared to decide whether the statistics is conducted in a current GOP or a new GOP is started. A frame in the video frame sequence is intra-coded and each of succeeding frames of a variable number is subject to 2-way prediction coding (B). Each B frame in succession to an I frame is coded from the I frame by using only forward prediction motion estimation. On the occurrence of prescribed deterioration in a picture, a new GOP is started for the processing. One example of an intra-frame characteristic to be monitored is the number of macro blocks that are intra-coded in each coded B frame. This number is compared with a threshold value and the threshold value may be a part

of a total number of macro blocks in a frame.

COPYRIGHT: (C)1999,JPO



BEST AVAILABLE COPY